PSA — Enhancing situational awareness

Enterprise leadership

Air Force Materiel Command experts envision that Predictive Support Awareness will cover all conceivable support issues, focusing on five primary elements, according to Maj. Gen. John Barry, AFMC Plans and Programs director. Those areas are: Enterprise Leadership; parts; munitions; combat mission needs statements; and technology innovations.

These elements will collectively provide links necessary to help warfighters predict needed future actions by being more aware and better informed of the situation they're facing, Gen. Barry said. A linked perspective of these various areas will allow the AFMC commander and his staff to view what operational commanders in the field need, combined with the status of parts and ammunition, as well as innovations at or near completion in AFMC laboratories.

This and the following pages offer a top-level view of each of these assessment areas and their contribution to PSA, starting with Enterprise Leadership.

AFMC's Enterprise Leadership is a method to integrate the many different processes needed to acquire or sustain a system as Air Force Chief of Staff Gen. John Jumper said, "Enterprise Leadership equals horizontal integration." It puts a single person in charge of a system of systems, leading to better development decisions and making it easier for customers to get solutions from a single point of contact, said Gen. Lester Lyles, AFMC commander.

"Enterprise leadership shatters information stovepipes," Gen. Lyles said. "It dovetails perfectly with agile acquisition and other transformation efforts."

Enterprise leaders will assess what technology is available to satisfy a capability shortfall, officials here said. This process will bring together experts from the laboratories, development and support organizations to provide the warfighter integrated sets of options which can be implemented rapidly.

In short, officials said, programs organized under Enterprise Leadership produce a greater effect than the sum of programs acting individually.

"Adding the contextual frame of the Enterprise Leadership construct will make sure the service's broader needs are considered at the same time that the warfighter's needs are addressed - proactively, said Gen. Barry.

Munitions

Beyond having adequate parts to allow Air Force weapons platforms to achieve desired mission capability rates, little is of greater importance to operational commanders than munitions availability.

Having timely knowledge of anticipated shortages of munitions needed to achieve the desired operational effects serve to enhance today's warfighter capability. And according to Maj. Gen. John Barry, director of Air Force Materiel Command's Plans and Programs Directorate, The Predictive Support Awareness's munitions focus promises to provide insights to allow AFMC experts to make sure operational requirements are met the best way possible.

Monitoring inventories

Air Force plans and operations experts at the Pentagon determine the types and quantities of weapons needed to execute planned operational campaigns. Actually getting those needed munitions falls to AFMC, according to Gen. Barry.

He said by monitoring the current state of inventory; the status of on-going contracts; and the potential to accelerate individual component delivery, AFMC experts can increase options open to senior leaders as plans for prosecuting war efforts are developed, evaluated, refined and implemented.

AFMC people's courage and honor are evident in the way they are giving America's warfighters greater capabilities and their commander's greater options, said Gen. Lester Lyles, AFMC commander.

In a recent editorial, Gen. Lyles cited the Air Force Reserve Ammunition Team members at Hill Air Force Base, Utah, for distributing nearly 4 million pounds of precision-guided bombs and saving $1.5 billion by refurbishing and reconfiguring these munitions.

He also said for the first time in a close-air-support role, B-52

Munitions *continued on next page*

Providing parts

In addition to more effective leadership throughout each Air Force Materiel Command enterprise, providing parts to keep weapons systems fully mission capable to achieve desired operational effects is a prime Air Force Materiel Command mission.

AFMC experts take their parts mission very seriously, working to solve backorder problems that have plagued the supply system in years past.

One example of this is Warner Robins Air Logistics Center Special Operations Commando Control organization accelerating the repair and acquisition of special operations aircraft spares above the level that can normally be produced by available peacetime resources, officials here said. These measures were taken to meet increased Special Operations Forces requirements due to wartime demands.

Reducing backorders

Since the war on terrorism began, 3,591 backorders were aggressively managed within the integrated product teams with 3,243 requirements being filled, officials said. During the past month backorders have been reduced 12 percent from 396 to 348, and since April 1, backorders have been reduced by 37 percent.

Warfighters and other Defense Department experts use the many existing AFMC tools and data systems to gain a comprehensive view of the status of individual parts within the command. Predictive Support Awareness isn't intended to duplicate those efforts. But by using existing systems and data, it will expand current capabilities by allowing warfighters and Defense Department experts to assess future weapon system sustainment — based on parts availability, depot constraints and future planned operations, according to Maj. Gen. John Barry, AFMC Plans and Programs director.

PSA's focus on parts is based on what experts here are calling the solid foundation that systems already accepted and widely used throughout AFMC provide.

Workers at Edwards AFB, Calif., work on the hydraulics and electric systems on a CV-22.

Improving capabilities

"Integrating our assessment models and other tools will enable improved short- and long-range assessments to estimate weapon system capabilities and problem part identification," Gen. Barry said.

He said AFMC experts will use a web-based suite of tools called the Feasibility Assessment of Combat Theater Sustainment, or FACTS, to accomplish these needed assessments.

"FACTS links computer models together and allows leaders to pull information in from what has already been done to how it will impact similar situations," he said. "It's sort of like having a tool box with a lot of predictive individual tools inside."

Munitions *continued*

bombers dropped cluster bombs contained in wind corrected munitions dispensers against forces in Afghanistan with devastating effects.

"People at Eglin Air Force Base's Air Armament Center in Florida developed a guidance kit for cluster munitions in half the time expected at one quarter the cost," he said. "The weapons also exceeded all accuracy and performance requirements."

In addition, more bombs can now be dropped on target with less risk to B-1B Lancer warfighters, AFMC officials said. A B-1B Lancer crew recently flew a milestone sortie when they successfully targeted three different weapon types against four separate targets in a single, 20-second bomb pass that used precision, or "smart," weapons.

The upgrades are part of the B-1's overall conventional mission upgrade program managed by Aeronautical Systems Center's B-1 System Program Office. The added capability increases the B-1's lethality, survivability and sustainability in a conventional role. The next step in the upgrade capabilities package will add precision standoff capability to the B-1's already impressive arsenal.

JASSM is a joint U.S.Air Force and U.S. Navy effort to develoop a precision stand-off weapon designed to attack heavily defended, high priority targets, and managed at Eglin AFB, Fla.

"Every sortie launched, every target confirmed, every bomb dropped and every radio contact completed in support of our war on terrorism happens because AFMC people continue to anticipate and meet the needs of America's warfighters," Gen. Lyles said.

Combat mission needs statements and technology innovations

An F-15 Eagle refueling from a KC-10A Extender, as part of combat air patrols over the nation on Christmas day. Predictive Support Awareness, part of the AFMC transformation effort, covers all support issues and provide links to help warfighters predict needed future actions.(Air Force Photo by Mr. Kenn Mann)

Air Force Materiel Command experts say they never want to place United States troops in a "fair fight" from a technological standpoint.

Reaching beyond known technology, some of the greatest scientific and engineering minds in the world are building a bridge to link evolving innovative technologies to the field — an area defense experts say is of prime importance to warfighting in the 21st Century. Speed is of the essence.

Assessing needs

One tool to help build that bridge is combat-mission needs statements, or C-MNS. These are what warfighters initiate to tell AFMC experts what their immediate needs are, according to Maj. Gen. John Barry, AFMC Plans and Programs Directorate director. C-MNS energize AFMC to rapidly evaluate new solutions or assess new product feasibility to be used in combat.

"When an equipment problem due to terrain, weather or some other complicating factor becomes known to our warfighters in the field, it's vital that we move with all possible speed to help provide a workable solution," he said.

Currently, databases store innovative technologies and C-MNS — but they are stored separately and usually brought together only in final form, Gen. Barry said. AFMC's candidate list of PSA innovative technologies will include those that are within a matter of months of being available to the warfighter.

"The knowledge of those presently incomplete systems can be of vital use in meeting the needs of troops deployed. AFMC personnel want to be sure that the needed technology 'in work' at an 80 percent solution level is made known to a deployed warfighter so proactive decisions or acceleration may be prudently made."

Placing like items together

He said an active dialogue between innovative ideas coming to fruition within AFMC's laboratories and emerging needs of fielded troops seems the only way to begin to take a proactive approach to solving troublesome problems that are unforeseen — the unknown-unknowns. That's where PSA's technology innovations and combat-mission needs statements focus comes into play.

"While technically meeting any newly surfaced need may be reactive, PSA will attempt to bundle like requirements and like technologies together to see if matches of need and capability can be made sooner," Gen. Barry said.

Information on pages 16-18 provided by Air Force Materiel Command Plans and Programs Directorate and written by Tech. Sgt. Carl Norman, AFMC Public Affairs